How to Set Up and Use the SAP OEE Custom KPI Andons Feature

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SAP OEE How-To-Guide for Creating Custom KPI Andons

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# Document History

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1 Introduction

1.1 Purpose
This document covers all the information required to create custom KPI andons in the SAP OEE Dashboard.

1.2 Scope
This document covers the aspect of creating a custom KPI andon and integrating to the SAP OEE Dashboard.

1.3 Glossary

<table>
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<tr>
<th>Activity Configuration</th>
<th>Activity configuration is an OEE MII configuration that allows configuration of individual UI / EJB / Transaction activities. UI activities can be plugged into the dashboard.</th>
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<tr>
<td>General configuration</td>
<td>General configuration is an OEE MII configuration that allows configuration of plants and workcenters for SAP OEE Worker UI.</td>
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<td>Dashboard configuration</td>
<td>Dashboard configuration is an OEE MII configuration that allows design of a custom dashboard using activities created from Activity Configuration.</td>
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2 Feature Overview

2.1 Description and Applicability
You can create your custom andon screens and configure them to display both standard as well as user-defined KPIs.

This custom andon screen can be linked to the SAP OEE Worker UI, replacing the standard KPI Andon screen that is shown now.

2.2 Business Purposes / Functions
Business purpose for creating a custom KPI andon is to display user-defined KPIs as well along with the standard delivered performance indicators.
3 Integration
Not applicable.

4 Feature Setup

4.1 Prerequisite
For the custom KPI andon functionality, the KPIs must be configured in the ERP customizations and the targets should be defined in the ERP Plant Hierarchy.

4.2 Creating an MII Transaction for Custom KPI Calculation
1. Go to the SAP MII menu page.
2. Navigate to the Content Development → Workbench
3. Create a transaction with the following properties:
   a. **XMLInputString**
      Data Type: XML
      This XML contains the details of the Date/Time and the shift for which the KPIs are calculated.
   b. **XMLOutputString**
      Data Type: XML
      This XML contains the Standard KPIs for the shift as well as the placeholders for the Custom KPIs to be updated.
   c. **XMLModifiedOutputString**
      Data Type: XML
      Output Parameter: Click on the check box.
4. The **XMLOutputString** will have the following syntax:
   ```xml
   <?xml version="1.0" encoding="UTF-8" standalone="no"?>
   <ns2:OutputKPIService xmlns:ns2="com.sap.xapps.oee.dto.kpiservices">
   <availability>100.0</availability>
   <customKpis>
   <entry>
   <key>CUSTOM_KPI_1</key>
   <value/>
   </entry>
   <entry>
   <key>CUSTOM_KPI_2</key>
   <value/>
   </entry>
   </customKpis>
   </ns2:OutputKPIService>
   ```
<entry>
  <key>CUSTOM_KPI_3</key>
  <value/>
</entry>

<entry>
  <key>CUSTOM_KPI_4</key>
  <value/>
</entry>
</customKpis>

<flowTime>0.0</flowTime>
<loadingTime>11381.0</loadingTime>
<netOperatingTime>0.0</netOperatingTime>
<netProductionTime>11381.0</netProductionTime>
<oee>0.0</oee>
<performance>0.0</performance>
<quality>0.0</quality>
<qualityLossTime>0.0</qualityLossTime>
<speedLossTime>0.0</speedLossTime>
<timeUom>SECOND</timeUom>
<unScheduledDowntime>0.0</unScheduledDowntime>
<unaccountedTime>11381.0</unaccountedTime>
<valueOperationTime>0.0</valueOperationTime>

5. In the above placeholders for the Custom KPIs, the values must be filled. The number of custom KPIs and their positions is dependent on the KPI targets.
6. The result XML is copied to the XMLModifiedString.
7. Save the MII transaction.

4.3 Creating an Activity for MII Custom KPI Transaction

1. Go to the SAP MII menu page.
2. Navigate to the Worker UI Management ➔ Activity Configuration.
3. Click on Activity Configuration.
4. Choose Create Activity.
5. On the Main Tab, specify an Activity ID in capital case and without any white spaces.
6. In the Activity URL, specify the URL of the transaction created in Step 7 of 4.1
7. Choose the Activity Type as Transaction.
8. In the Activity Description tab, provide a description in any of the ISO languages.
   Note: This activity description will be visible to you while creating an extension in the General Configuration screen.
9. Click on Save.

4.4 Creating an Activity for Custom KPI Andon Screen

1. Go to the SAP MII menu page.
2. Navigate to the Worker UI Management → Activity Configuration.
3. Click on Activity Configuration.
4. Choose Create Activity.
5. On the Main Tab, specify an Activity ID in capital case and without any white spaces.
6. In the Activity URL, specify the following URL:
   sap.mpm.ui.activity.configuration.andon
7. Choose the Activity Type as UI.
8. In the Activity Description tab, provide a description in one of the ISO languages.
   Note: This activity description will be visible to you when you are including a panel in the dashboard.
9. In the Options Tab, click on Add button.
10. In the Option Name, enter the text: ALLOWED_KPI
11. In the Options Description panel, click on Add button to enter the activity option descriptions.
12. Provide a description for the activity option in one of the ISO languages.
13. In the Options Value panel, click on Add button to enter the list of KPIs to be shown in the andon screen.
14. In the Options Value, enter the sequence number and the KPI Value to be shown in the andon.
15. For the Standard OEE KPIs, enter the following texts:
   
   AVAILABILITY
   PERFORMANCE
   QUALITY
   OEE
16. For the Custom KPIs, enter the exact KPI values defined in the ERP customization.
17. Click on Save.
18. Click on Save again for the activity.

4.5 Creating an Extension for Calculating Custom KPIs
1. Go to the SAP MII menu page.
2. Navigate to the Worker UI Management → General Configuration.
3. Click on General Configuration.
4. Choose the Client and the Plant to show the Plant Hierarchy.
5. Choose the Workcenter/Line for which the extension is to be added.
6. Select the Extension Configuration Tab.
7. Click on Add Button in the Method panel.
8. Select Get OEE KPIs from the methods list and click on Add.
9. Select the above method, and click on Add Button in the Extension Panel.
10. In the Extension Details popup, enter the following details:
    
    Extension Type : POST
    Activity : Choose the activity created in the step 5 of 4.2
    Extension Sequence : Set a sequence number for the extension.
    Enabled : Click on the checkbox to enable the extension.
11. In the Extension Description Panel, provide a description for the extension in one of the ISO languages.
12. Click on Add button to add the extension configuration.
13. Click on *Save*.

5  **Usage Scenario Examples**

Not applicable

6  **Other Reference Material**

OEE MII Guide

OEE ERP Guide

7  **Overview of Changes**

Not applicable